



BTMC Whitepaper

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BTMC 2017-2018

The content of the document may be modified as it is under preparation.

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Project Nature



With the rapid expansion of the artificial intelligence industry chain, the Graphics Processing Unit (hereinafter referred to as “GPU”) cannot fulfill calculation tasks for deep learning in all scenarios. The demand for computing power has attracted many corporate giants and start-ups to enter the field of artificial intelligence chips and formed a bottom-up ecological system. Under the general trend of artificial intelligence, the cake in the chip market is growing bigger and bigger.



Up to 2022, the AI chip market scale will reach 49 billion U.S. dollars. However, with the occurrence of extreme fragmentation, complication, and geographic decentralization in cycles of AI chip production and supply, traditional concepts and technologies can no longer support relevant cycles at present, and accordingly a series of problems arise in the AI chip supply market such as low transaction efficiency, high costs and difficulty of scale effect.

Figure 1. Project nature of Bit Miner Chain (hereinafter referred to as “BTMC”)



1

Release the vitality of the AI chip industry with the Blockchain technology



2

Join BTMC Union Club

Concept germinated by technical entrepreneurs and doctoral teams:

Characteristics such as decentralization, security, information transparency, and smart contracts have fundamentally solved the problems of centralization and trust in the AI chip supply chain. This solution is realized through the underlying technology and has a decisive significance in solving problems existing in the current supply chain.

As a great revolution, the Blockchain technology cannot be truly realized without being put into practical use and combined with applications in various fields. The Blockchain technology can only be reduced to be a testing ground for geeks and an amusement park for speculators, if it does not solve practical problems.



Build a decentralized integrated service platform with AI chips as a mainstay



Provide secure and convenient payment channels for transaction parties in AI chips



Provide respectively the transaction protection and more service guarantees for buyers and suppliers



To see it from the development trend in the future, all human assets will eventually be digitized, which will be the greatest opportunity in the next 30 years. To achieve this, the Blockchain technology should be combined with the real-world business and the real economy, only by which that the real value of the Blockchain technology can be truly realized.

In our opinion, as an efficient decentralized integrated service platform for AI supply chains, BTMC has a wide application scenario.

Glossary



Artificial intelligence: Artificial Intelligence goes by acronym AI. Artificial intelligence is a discipline that studies how computers can simulate certain thought processes and intelligent behaviors (such as learning, reasoning, thinking, planning, etc.), mainly including the principle of intelligence realization of computers, manufacture of computers that are similar to human brain intelligence, in order that computers are capable of achieving higher level of applications.

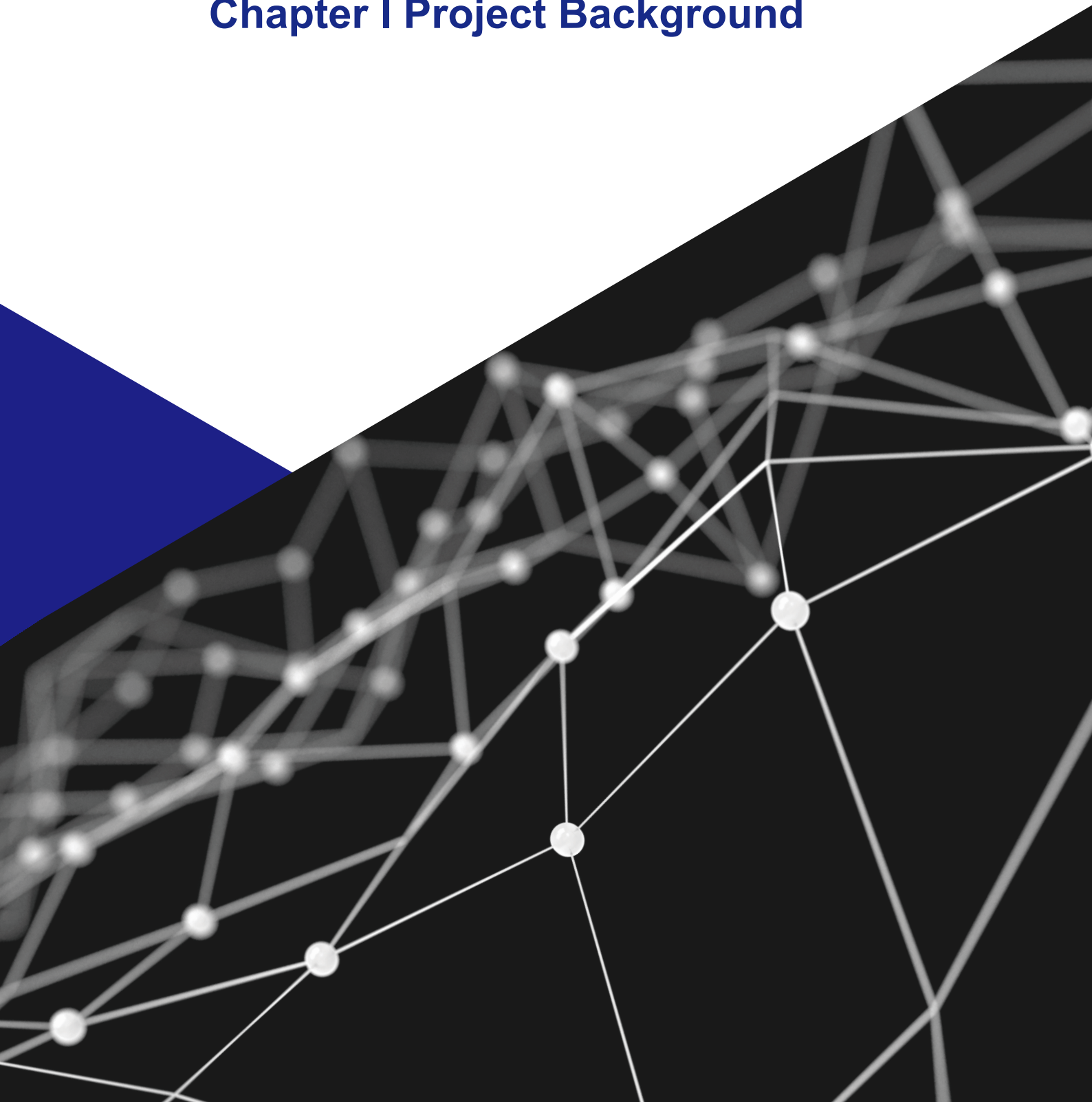


Artificial intelligence chips: Chips, also called integrated circuits, can be divided into many types according to their functions, such as chips for output control of supply voltage, for audio and video processing, and for complex calculations and operations. AI chips are also known as AI accelerators or computing cards, which are modules dedicated to handling large numbers of computational tasks in artificial intelligence applications (other non-computing tasks are still taken charge of by CPUs). At present, AI chips mainly include GPUs, Field Programmable Gate Arrays (hereinafter referred to as “FPGA”), and Application Specific Integrated Circuits (hereinafter referred to as “ASIC”).

References:

1. BIP44 <https://github.com/bitcoin/bips/blob/master/bip-0044.mediawiki>
2. SM2 http://www.oscca.gov.cn/News/201012/News_1197.htm
3. SM3 http://www.oscca.gov.cn/News/201012/News_1199.htm
- 4.Chain <https://chain.com/>
- 5.BTCRelay <http://btcrelay.org/>
6. Ilya Grigorik <https://www.igvita.com/2014/05/05/minimum-viable-block-chain/>

Chapter I Project Background



Chapter I Project Background

1.1.1 Market Scale

With wide application range in consumer electronics, medical care, film and television, games, Internet of Things, and automobiles etc., AI chips have promising market prospects. According to data in the report of “Market Scale and Forecast Analysis of Various Sectors in AI Chip Industry in 2018” published by Chinabaogao (<http://www.chinabaogao.com>), the global AI chip market scale will grow from two billion U.S. dollars in 2017 to 49 billion U.S. dollars in 2022 with an average annual increase of 90%. The training market has taken the lead, but the inference market, especially the edge inference market will follow it and obtain a rapid development. The GPU market will gradually lose its shares, and FPGA and ASIC will cut a figure with their shining “chips”.

To be more specific, the AI chip’s market scale for algorithm training links that are deployed in cloud data centers will grow from 1.47 billion U.S. dollars in 2017 to 18.2 billion U.S. dollars in 2022 with an average annual increase of 65%. The market scale for AI chips in the algorithm inferring links that are deployed in cloud data centers will grow from 84 million U.S. dollars in 2017 to 7.4 billion U.S. dollars in 2022 with an average annual increase of 145%.

The market scale for AI inferring chip in self-driving cars will grow from 142 million U.S. dollars in 2017 to 10.2 billion U.S. dollars in 2022 with an average annual increase of 135%. The AI inferring chip/built-in unit used in smartphones will grow in market scale from 220 million U.S. dollars in 2017 to 3.4 billion U.S. dollars in 2022 with an average annual increase of 73%. The AI inferring chip/built-in unit used in security cameras will have a market size of 55 million U.S. dollars in 2017 and then increase to 1.8 billion U.S. dollars in 2022 with an average annual increase of 101%.

For other AI inferring chips/built-in units used in equipment for Internet of Things, their market scale will grow from 140 million U.S. dollars in 2018 to 7.7 billion U.S. dollars in 2022 with an average annual increase of 173%. The shares of inferring chips/built-in units in the entire AI chip market will increase from 25% in 2017 to 63% in 2022 with an average annual increase of 116%, which surpasses that of 65% for training chips.

The market share of AI chips/built-in units deployed at the edge will increase from 21% in 2017 to 47% in 2022 with an average annual increase of 123%, which surpasses that of 75% for cloud deployment.

The market share for GPU will drop from 70% in 2017 to 39% in 2022, and its main growth impetus will be transferred from data center algorithm training to self-driving cars. As a result, most parts of the inference market, including data centers, smartphones, security cameras, and equipment for Internet of Things, will be dominated by ASICs and FPGAs.

1.1.2 Existing problems

Although the global market scale for AI chips is being enlarged incessantly, many problems still exist in real market transactions, including:

A. Highly centralization and vulnerable anti-risk capacity

In the current AI supply chain, as a highly centralized industry, it is easy for corporate giants to occupy a great number of supply-chain resources, such as Samsung and Sony, because they have strong purchasing power and accordingly obtain most resources from AI chip suppliers with occupation of huge funds. Nevertheless, small and medium-sized companies can only obtain a small amount of resources to strengthen their competitiveness, even though they are the main players to motivate the market. This centralized model functions smoothly only if the system does not remain substantially concussion, otherwise, the crisis will spread rapidly, greatly impairing its anti-risk capacity.

On the evening of April 16, 2018, the US Department of Commerce released an announcement that the U.S. government will prohibit ZTE Corporation (hereinafter referred as “ZTE”) from purchasing sensitive products from American companies for the next seven years. In May 2018, ZTE made an announcement that the company could not carry out its principal business activities due to the prohibition from the United States, which has caused quite a stir in China and a nation-wide discussion. Both Chinese government and civil society have raised AI chips to a new height. The vulnerability of the AI chip supply chain is well illustrated in this incident.

B.Lack of transparency in process

The supply chain represents all links involved in the production and distribution of commodities, including the entire process from raw materials to finished products to distribution to consumers. Now it is very difficult to track events or to investigate accidents, because the AI chip supply chain can cover hundreds of stages, spanning dozens of geographical areas. A reliable method is not available for customers and buyers to verify and confirm the true value of products and services they have purchased due to lack of transparency in the entire supply chain, which signifies that the true cost of products cannot be accurately reflected in the price paid by the customer.

C.Information distortion

The AI chip supply chain is composed of multiple node companies. The weak capability of supply chain management in core companies and no availability of the integrated supply chain system will result in many structure levels in the supply chain, which will inevitably hinder upstream enterprises



from sharing end users' demand information in real time. When users' demand information is being transmitted from the bottom to the top of the supply chain, information distortion cannot be avoided due to level-by-level filtering. Meanwhile, demand forecasting, batch ordering, price fluctuations, short-term game and other operations also cause the information asymmetry and distortion. Therefore, multi-level supply chain networks, non-integrated supply chain systems, and node companies all lead to information distortion when they independently make inventory and ordering decisions, affecting the development efficiency of the entire industry.

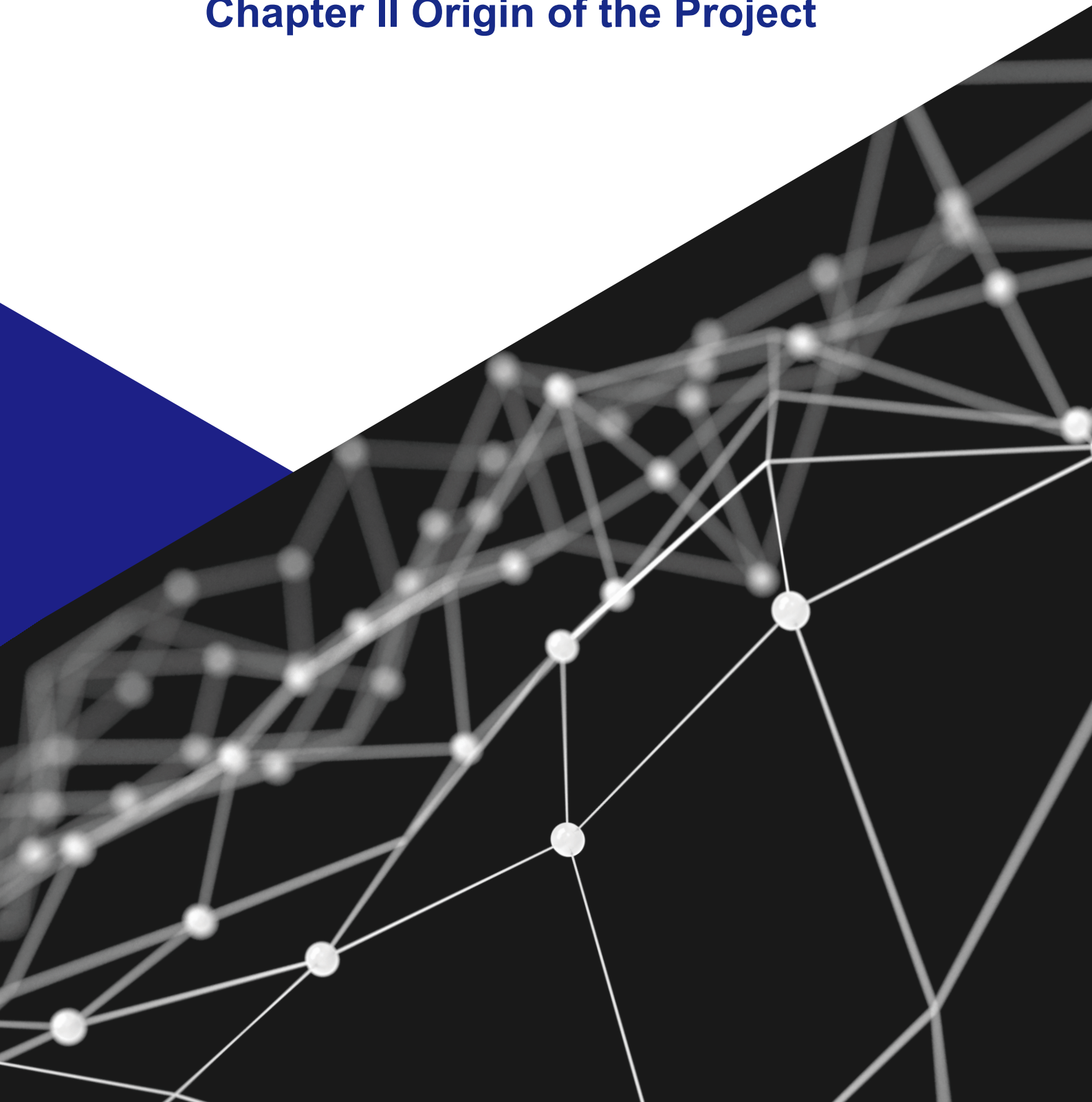
D.Serious internal friction and high costs

As that scale management is the best way to reduce costs, it is the most effective method for cost reduction through establishment of strategic alliances among companies of AI chip supply chain. However, information cannot be totally shared by all members due to temporary and short-term interests between node companies in the supply chain, and that the application of information technology is still in a backward level, which have resulted in difficult coordination and even disconnection in business activities between upstream and downstream companies in the supply chain with loose organization like a fuzzy black hole, wherefrom high costs and poor control being generated. Therefore, it is very difficult to form real strategic alliances, because trust crisis is permeated among supply chain members, including distrust of upstream nodes from downstream nodes, and asymmetry in trust expectancy, together with easy detriment of trust, vicious cycle and lack of standardization of trust mechanism in the supply chain.

It can be concluded from the above illustration that a new and vast market can be surely opened up by advanced technology means in one-stop manner to solve problems that exist in the supply chain of AI chips under the existing trading system.



Chapter II Origin of the Project



Origin of the Project

2.1 Solutions

A. Concept of Blockchain

Blockchain is an important concept of Bitcoin, a decentralized database in nature. Narrowly speaking, it is a chained data structure in which data blocks are sequentially connected in chronological order and is cryptographically a tamper-resistant and unforgeable distributed ledger. Broadly speaking, the Blockchain technology is a brand-new distributed infrastructure and computing paradigm for verification and storage of data through Blockchain data structures, for generation and updating of data through distributed node consensus algorithms, for the safety of data transmission and access through cryptographic methods, and for programming and manipulating data through smart contracts that are composed of automated script codes.

To put it simply, Blockchain technology refers to a method for all citizens to participate in bookkeeping. Behind the applied system, there is a database that can be considered as a large ledger, and then how to choose persons responsible for bookkeeping becomes very important. Under the current technological pattern, each system owner is responsible for its own bookkeeping, for example, WeChat's ledger is under Tencent's charge, the same with Taobao and Alibaba. In the Blockchain system, everyone in the system has the opportunity to participate in bookkeeping. If there is any data change within a certain period of time, he can make an accounting. The system will judge and find out the person with the fastest and best bookkeeping during this period, write the contents of his records to the account, and send the contents of the account for this period to all other people in the system for backup. Everyone in this system thus has a complete ledger. In this way, we call it Blockchain technology.

B. Advantages of the Blockchain technology

The advantages of the Blockchain technology model for national bookkeeping are obvious, including:

1. Security: Although efficiency is sacrificed to some extent, great security can be achieved. The entire system does not have a central ledger (decentralization) and cannot be destroyed. Each node is only one part of the system with equal rights and the same ledger. There is not any impact on the system if some nodes have been destroyed.
2. Reliability: Once verified and added to the Blockchain, the information will be stored permanently. Any modification to the database on a single node is invalid, unless more than 51% of the nodes in the entire system can be controlled at the same time. Therefore, a hacker controlling a few computers to change information will find it completely pointless to modify his own ledger (Other people do not recognize it), because the system still determines what is the true result according to opinions of most people.
3. High efficiency: As there are no centralized intermediary agencies, all things automatically operate through a predetermined program, which will greatly reduce costs and improve efficiency. With everyone keeping the same ledge, the openness and transparency in the bookkeeping process can be guaranteed.
4. Smart contracts: Smart contracts are agreements that use computer language instead of legal language to record terms. Smart contracts can be executed automatically through a computing system. From the user perspective, smart contracts are usually considered to be an automatic secured account. For example, when certain conditions are met, the program will release and transfer funds. From a technical perspective, smart contracts are known as network servers, but they are set up on the Blockchain to run specific contract procedures instead of on the Internet with IP addresses.

2.2 Ideas

Objectively speaking, characteristics of the Blockchain technology are decisively important in solving the problem of mutual trust in transactions, and can fundamentally solve various problems in supply chains for AI chips, which are reflected as follows:

1. Decentralization: In view of easier distribution of information in modern society and small-sized companies being in the majority, an industrial pattern of coexistence between a few giant companies and many small-sized companies can be formed to adapt changes more easily. The point-to-point decentralized transaction of Blockchain can meet the needs of such trend, avoiding the low utilization of resources due to centralized organization and maintaining the stability of the network between nodes at its own discretion. More importantly, the Blockchain technology has smoothed gaps between existing funds and value assets through tokens. Once placed on the Blockchain, the assets of a company that is an entity to issue credentials will be maintained on many decentralized nodes with no regard to any trust from third parties, which will provide more convenient financial services for small, fast-growing companies.

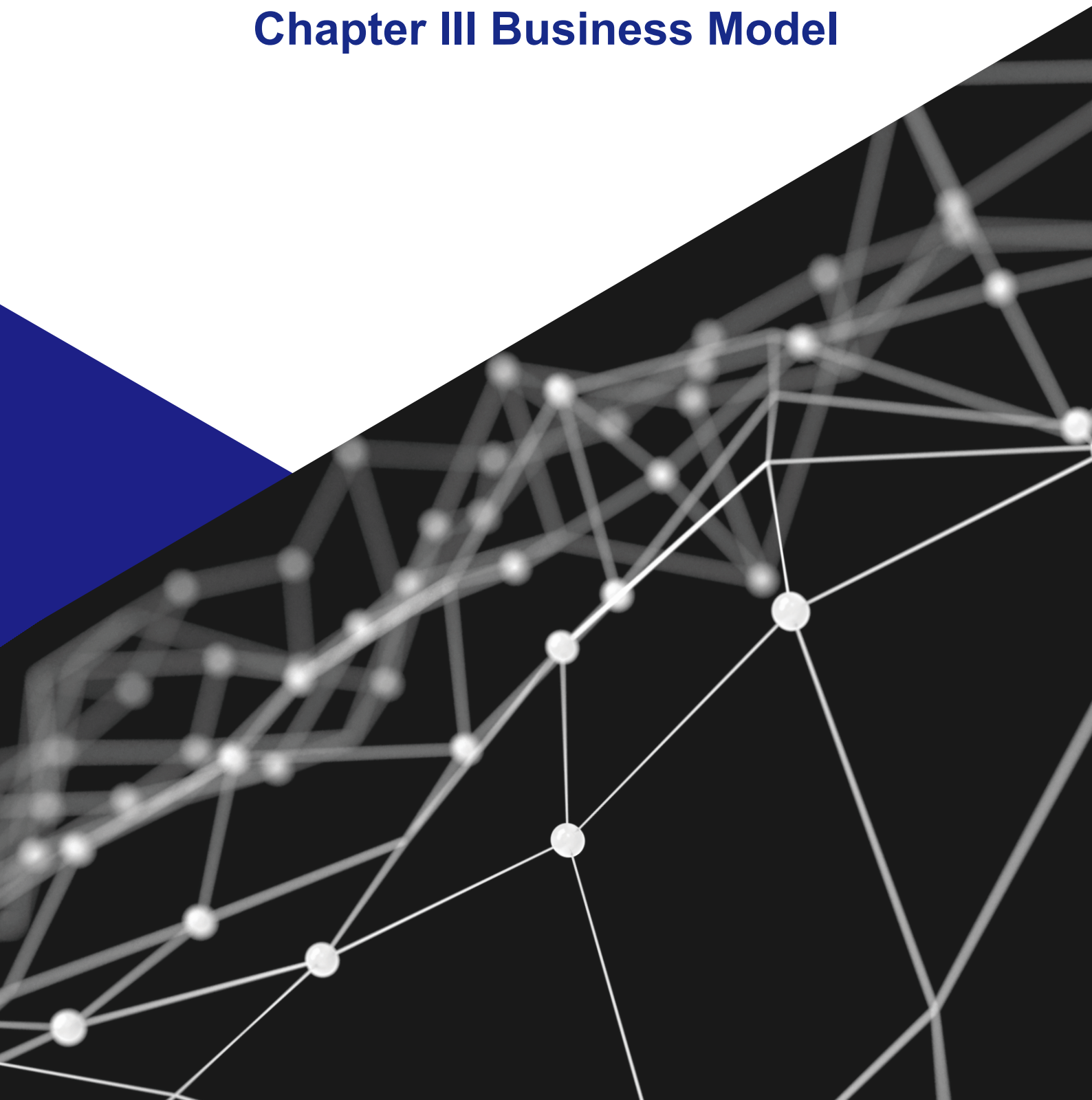
2. Security: In the traditional supply chain, data is mostly kept in a centralized ledger in a scattered and isolated manner by core companies or participating companies. When the information on the ledger is against itself, there is a risk that the book information may be tampered with or deleted without permission. Characteristics of the Blockchain technology in tamper-resistance of data on the chain and timestamp can ensure that all data, including production, storage, transportation, sales, and follow-up issues of the finished product will not be tampered with. Accordingly, the asymmetry of information together with costs for credit investigation and communication will be greatly reduced because of the tamper-resistance of data, which will help companies quickly establish trust and spread risks born by core companies at the same time. The Blockchain technology ensures the lossless flow of data between the upstream and downstream of the supply chain, effectively avoiding the distortion of information.

3. Information transparency: The consensus mechanism of the Blockchain system solves the problem of mutual trust between nodes with the decentralization as the main purpose, enabling many nodes to be in a relatively balanced state on the chain. Blockchain helps to transmit trusted information and transfer value on untrusted channels, and the consensus mechanism of Blockchain facilitates to achieve consistency in the distributed scenario of such a supply chain. Under the “consensus mechanism”, operations between companies follow a set of processes determined through negotiation, rather than relying on the dispatching and coordination by core companies, which is helpful to form enough information transparency and sufficient mutual trust to improve operating efficiency while realizing interests among alliance enterprises.

4. Smart contracts: Under the rules defined by Blockchain, various entities on the supply chain of AI chips, including terminal demand companies, various suppliers, and logistics companies, can execute smart contracts automatically through the Blockchain technology. This will greatly facilitate the establishment of supply chain alliances of AI chips, in which all procedures will be completed in accordance with established rules so as to establish mutual trust mechanisms. In addition, under rules of smart contracts, the transfer of supply information will be faster and more convenient.

It can be thus concluded that characteristics such as decentralization, security, information transparency, and smart contracts have fundamentally solved the problems of centralization and trust in the AI chip supply chain. This solution is realized through the underlying technology and has a decisive significance in solving problems existing in the current supply chain domain.

Chapter III Business Model



Business Model

I. Basic Model

In consideration of the problems in the industry, this project team sets up the Bit Miner Chain (BTMC) project based on the Blockchain technology so as to build a decentralized integrated service platform for the transaction of AI chips. The platform will rely on technical characteristics of Blockchain to provide fast and convenient services for global industry participants related to AI chips (producers, logistics providers, terminal users, etc.) (Figure 3-1). In near future, BTMC will also build the public Blockchain to allow more participants of industrial chains to build sub-chains on the public Blockchain, gradually establishing a decentralized AI chip supply system by the Blockchain technology.

On the BTMC, each participant in the industrial chain can equally conduct activities such as information transfer, asset transactions, on-line transfer and token distribution, etc., which are all under protection and encouragement based on the Blockchain technology.

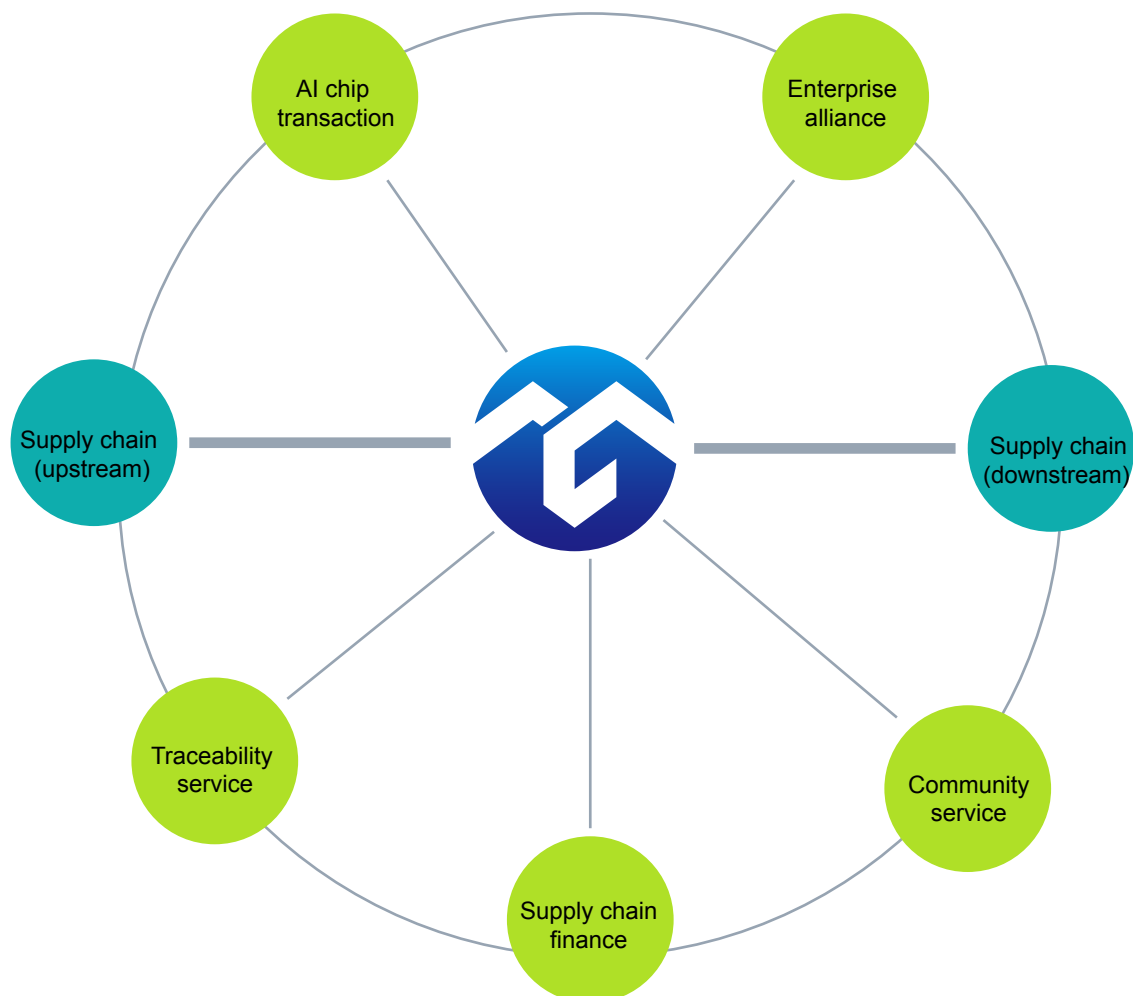


Figure 3-1

II. Scenarios

As a highly efficient decentralized service platform for AI supply chain, BTMC could be used in many occasions, such as:

[AI chip transaction]: This is a key application of BTMC in the early stage. Under conventional technical conditions, AI Chip transactions shall pass various procedures, each of which needs more costs, with information that is no very sufficient. By virtue of BTMC, a low cost and transparency is provided. Through decentralization and smart contracts, it makes P2P transactions possible. A transaction body in a node can make deals with other nodes, improving the efficiency and reducing the costs.

Specifically, BTMC will apply AI to provide supports for AI chip-based transactions. The services include:

1. Smart transaction (e.g. pre-sales consulting, procedures handling, contract transaction, contributed to a lower cost, higher efficiency, and less frauds).
2. Smart risk control (judge the risks of transactions in combination with Big Data, help transaction parties and financial institutions control risks).
3. Smart matchmaking (smart judgement of demands, accurate matchmaking, matching the resources and increasing the successful rate).

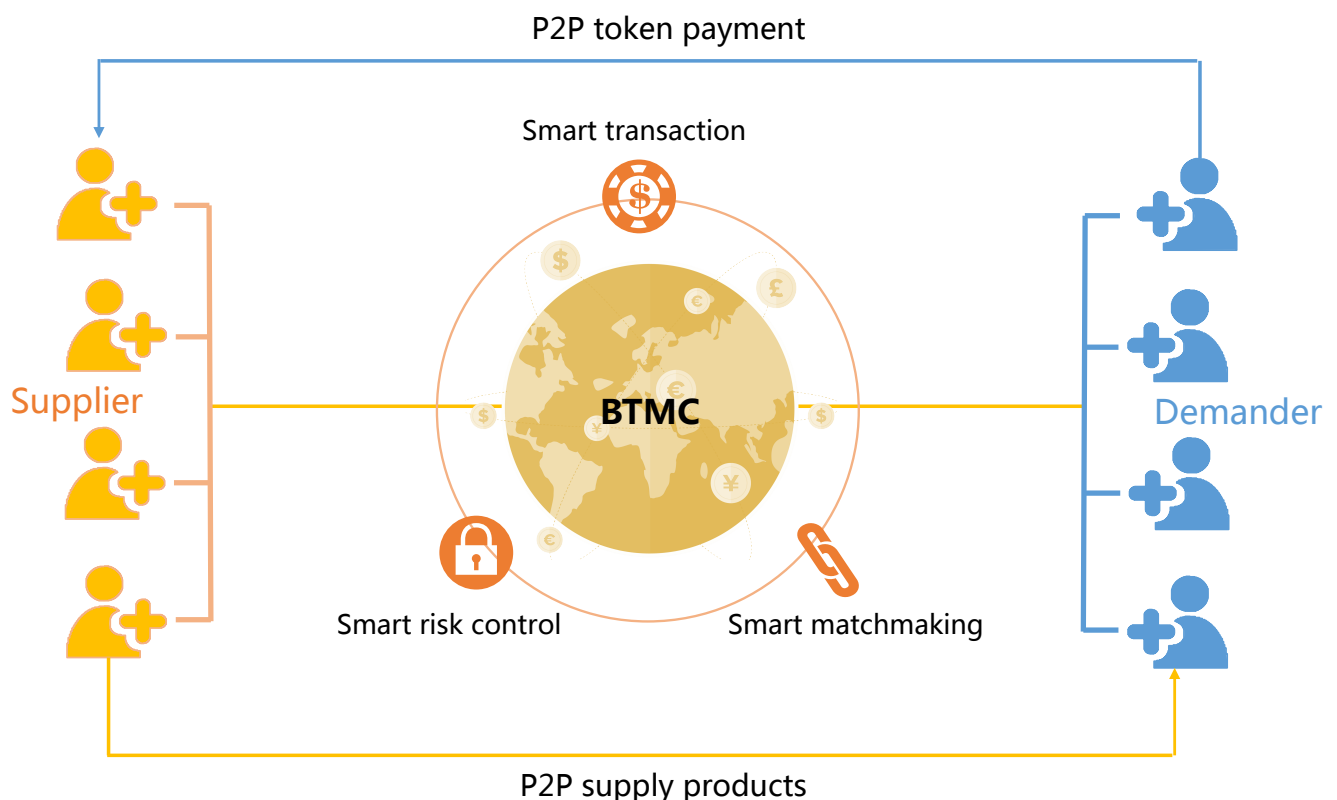


Figure 3-2 AI Chip Transaction

[Traceability Service]: Traceability is the most effective anti-counterfeit method in the field of product sales. BTMC can serve as an effective solution to the anti-counterfeiting by making the AI chips informational, standard and transparent during the circulation. BTMC provides for users the complete product traceability service. Upon the registration and certification of a merchant, any product he sells will subject to data recording for the record in the entire process so that the product can be traced back to a stage of raw material consumption. As the ledger features a decentralized architecture, it is impossible for either Party to own it, or manipulate the data for his own benefits. In addition, thanks to the encrypted and unchangeable transactions, the ledger can be hardly damaged, and the traceability information can be fully guaranteed.

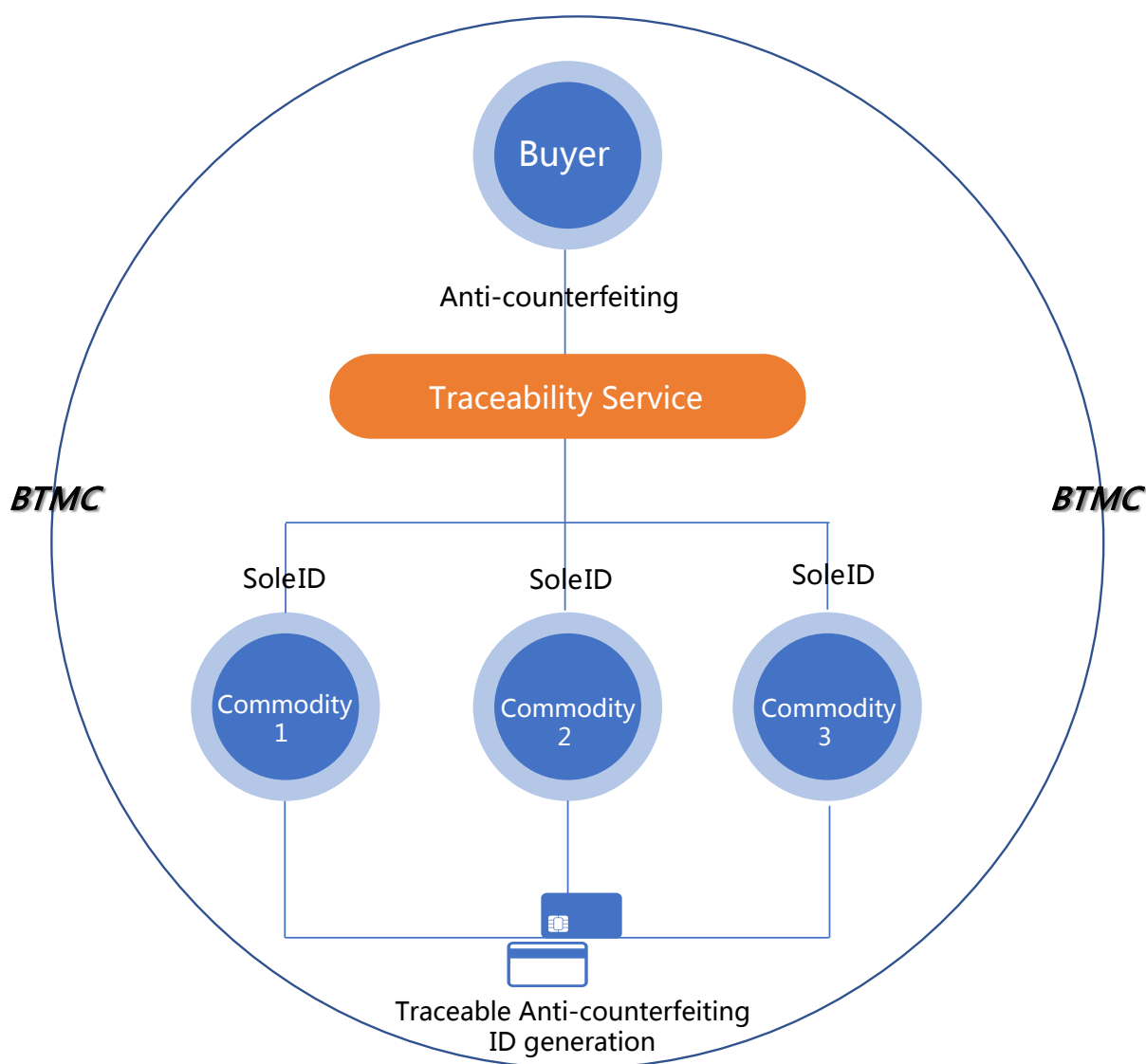


Figure 3-3 BTMC Traceability Service

[Supply-chain Finance]: For the purpose of BTMC, financial institutions may develop an application to provide the financial services for small and medium-sized enterprises. Blockchain technology enables the transaction parties to have a more transparent process and makes it easy to regulate the funds and logistics so as to avoid any non-substantial trading. Consequently, this contributes to lower costs of credit and risk control, and enables the financial institutions to provide for the enterprises with such demand the immediate financial services like loans, financial leasing and installment payments to meet the financial needs of small and medium-sized enterprises.

[Enterprise Alliance]: BTMC features the tamper-resistant data to significantly reduce the possibility of asymmetric information and the costs of communication between enterprises. This overcomes the information distortion and significantly improves the operation efficiency of supply chain. In this case, the data can flow with no loss between upstream and downstream supply chain, and enterprises may establish the alliance at a lower cost and they don't have to waste time playing game, but spend more energy thinking about how to compete with other supply chains in costs and efficiency to provide the best products and services for final customers.

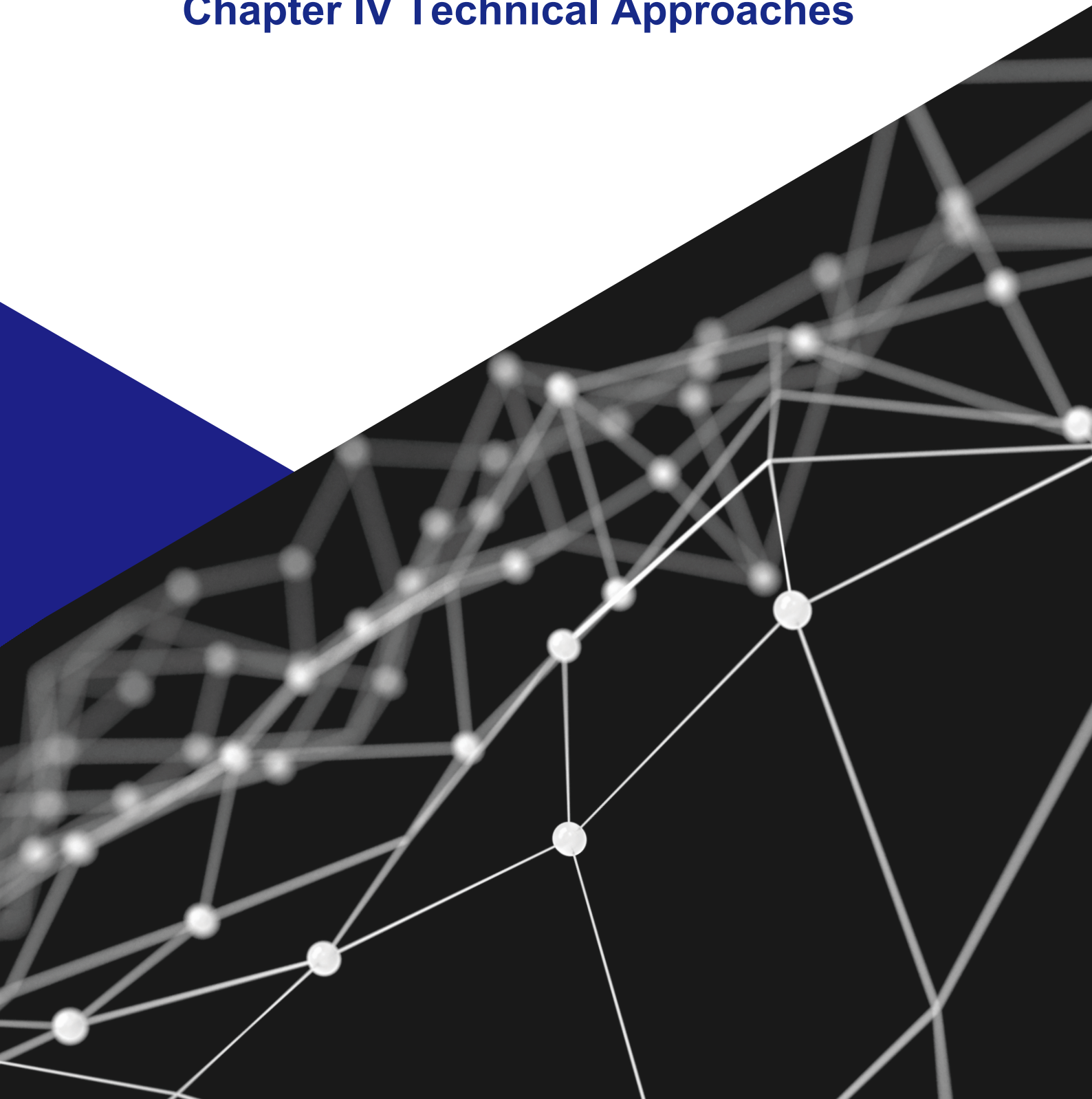
[Community Service]: BTMC is aimed at building a community of users where the downstream subscribers can have a free talk about whatever problems they have with the purchase and use of AI chips to share the experience of such purchasing. In addition, BTMC also enables the bodies of upstream supply chain to discuss the national policies, market situation of AI chips and new technical trend in the community to have more participants of the platform and create a sound environment. For the community, such behaviors as rewarding and access to internal information require the consumption of BTMC tokens. We'll endeavor to provide the access of our users to some simple functions like recreational gift exchange which can be supported by the BTMC payment.

In conclusion, BTMC is characterized by the blockchain to solve the problems of AI chips in the market. We believe that as the market of AI chips grows, BTMC becomes increasingly valuable and significant. When it comes to global market of AI chips, it is conceivable that the use of tokens takes places on many occasions, and this will provide the sufficiently valuable support of BTMC in initiation and application.

III. Advantages

Unlike the majority of purely technical blockchain projects, this project is endorsed and established through the physical resources. First, the project is operated by a team of 20 doctors who have the proven experience of chip design and boast the abundant resources in the field of AI chip; second, based on the big data industrial park with the project approval by the NDRC of northwest China, the project features a better supporting industrial chain, and can take the advantage of industrial resources to support the operation (e.g. platform-based transaction and small-scale industry alliance) at the early stage.

Chapter IV Technical Approaches



Technical Approaches

I. Technical Architecture

The technical architecture of BTMC consists of 6 layers, namely, data, network, consensus, actuator, contract, and application layers:

1) Data Layer

The block data of BTMC is stored in a chain form, in which all the blocks have a pointer reference, so as to ensure that data will not be tampered with. BTMC uses sha256 function to hash the data with sha 256 function, asymmetric key encryption with ecc; ecc BTMCf private key, validation and storage with Merkle number.

2) Network Layer

The nodes of BTMC use Nio Socket for interaction, while use DNS and built-in methods to load seed nodes. All the nodes conduct self-test after launch. The nodes in a public network report their IPs and ports to the network, and other nodes will validate the reported information. If passed the validation, all the nodes will store the IPs and ports available on a local device and no detection is needed for the next launch; if no passed (there will be a rule in which a detection will be conducted every 10 minutes and which will be triggered when the failure times exceed 10 than success times), the node might have go offline and will be deleted from the storage. When there are a few nodes, more nodes available will be inquired. Through hole punching and traversal, BTMC enables a connectivity among the nodes in the internal network and uses its validated nodes to serve as links, helping the nodes behind NAT shake hands and realize connection.

3) Consensus Layer

The consensus layer of BTMC uses the DPOS++ scheme, whose algorithm has been improved based on DPOS of EOS, being more advanced. According to the algorithm, people holding a token can decide a producer of a blockchain through the voting system. Once produced, the candidates will be able to join the production.

BTMC is forecast to produce one block every 3 seconds whenever one producer is authorized. A block will be omitted if there's no production. In the architecture of BTMC, the generation of blocks is based on a cycle of 51 blocks. When a cycle starts, the former 50 out of the 51 producers (super nodes) will be selected out automatically, while the 51st producer will be determined according to the probability of votes. The selected producer will be mixed according to the pseudorandomness derived from the time of block generation, so that a balance can be achieved on the connection among block producers.

4) Actuator Layer

BTMC provides certain tokens as an incentive for consensus, so as to encourage participation in consensus. A consensus node has no upper limit and is dynamically changing due to its high performance.

5) Contract Layer

As the core layer of blockchain, the contract layer of BTMC undertakes a majority of the business dealing procedures. Based on the UTXO model, we have designed the financial asset transfer and transaction of embedded data. Methods different from those of other smart contract platforms are used for integration of public chain and formation. BTMC will encourage third-party companies or teams to create more affable and practical applications. We use the original hash memory map designed by Libbitcoin for storage, which features a fast speed and high performance and is hard to get access to memory pool. The defect is that it has inadequate extension, resulting a certain cost of learning.

6) Application Layer

The application layer of BTMC includes the command line and a light HTTP server. A command line is an interoperable set. Based on the command of Libbitcoin, BTMC has extended about more than 40 commands. An HTTP server has integrated Json-rpc and Restful API, as well as the friendly WebUI interface. A user can use API to visit through a browser.

II. Technical Features and Advantages

A big number of tests and analysis suggest that BTMC blockchain can achieve such performances: instant verification, massive data storage, high throughput, and fast synchronization of node data; such a extensibility: multi-business blockchain structure and authority control strategies; in the meantime, provide safe access services and privacy protection solutions.

I) Performance

1. Instant verification for transactions

Through optimization of key links such as signature algorithm, ledger structure, data manipulation, serialization, consensus mechanism, and message diffusion, the BTMC Blockchain can fulfill rapid transaction verification in seconds, satisfying users' experiences in most application scenarios of Blockchain.

2. Massive data storage

Under the double-entry bookkeeping model of Blockchain, historical data accumulates continuously with the long-term operation of the system; the BTMC Blockchain uses the mechanism of separate storage of hot and cold data and table-division storage from the traditional financial system to achieve effective storage of massive data. The old transaction data, inactive asset data, and other information can be stored through big-data storage platforms (such as Hadoop and PB-level data storage).

3. High throughput

The nature of Blockchain is a distributed and shared bookkeeping technology, whose distributed characteristic mainly lies in distributed consistency rather than distributed concurrency processing. In order to ensure the consistency of data and avoid Byzantine failures, certain specific links can only be implemented in serial manner instead of parallel manner. Through long-term testing and optimization practices, the processing capacity of the BTMC Blockchain can meet the needs of 10,000 TPS (Transaction per Second). If the Off-Chain and other mechanisms can be introduced, the transaction throughput will be further significantly increased.

4. Fast synchronization of node data

The BTMC Blockchain supports the Snapshot mechanism, through which snapshots of local ledgers can be periodically established to realize a convenient rollback mechanism, rolling back specific tags of snapshots under the unified consensus; at the same time, it is only needed to synchronize the latest snapshots with a few sets of recent transactions to integrate into the network and participate in consensus verification, shortening the cycle for newly-added nodes to join.

II) Extensibility

1. Multi-business Blockchain structure

The BTMC Blockchain structure can meet the needs of various businesses in different fields, improving the system's extensibility and maintenance efficiency. It can be used to tag and transfer assets, to provide records of multidimensional events that cannot be tampered with, and also to trace sources for tracking of asset circulation.

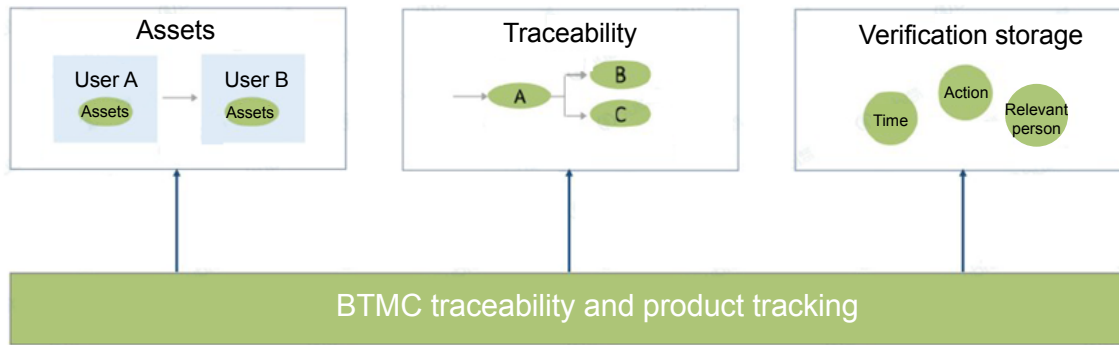
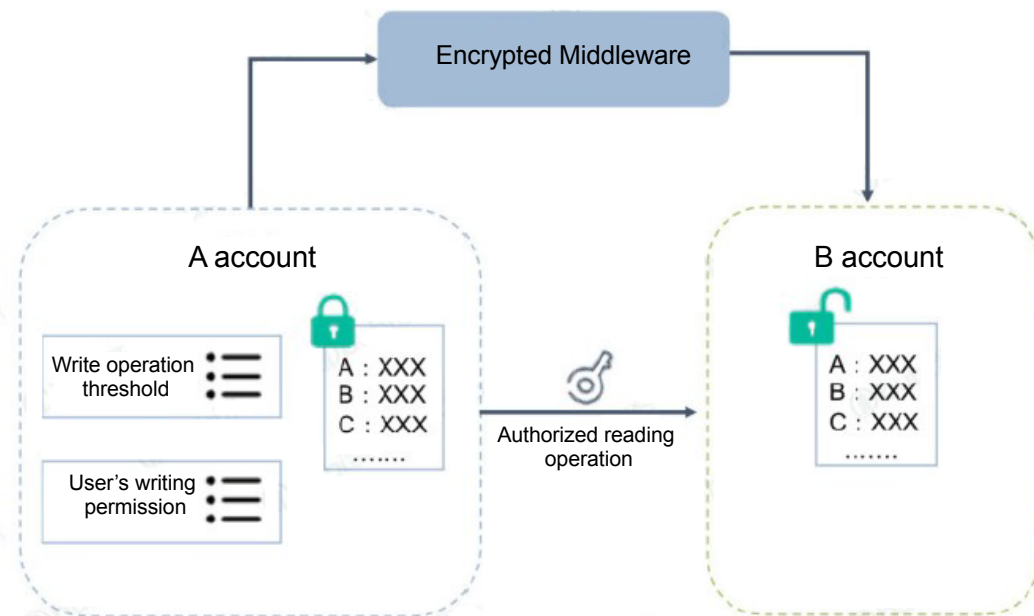


Figure4-1 Multi-business Blockchain Structure

2. Authority control strategy

Two types of authority control strategies are provided for writing and reading data information. For the writing authority, multiple user accounts are created under the same account, and authorities for different operations are set accordingly to meet the application scenario controlled by multiple signatures. For the reading authority, the account owner can grant and withdraw the operation authority for data of a single user or a user group that can be flexibly configured by the owner. Data information includes user account, transaction, etc., whose granularities can be detailed to each attribute field of the transaction or account.



III. Security

1. Secure private key access

In order to facilitate users to utilize products and services of Blockchain, BTMC also provides the web hosting access and private-key hardware access (U-key) in addition to traditional mechanisms for client generation and saving. The web hosting access refers to mapping both the user name and password into the private key by specific algorithms and storing this private key on the server. The private key that can only be decrypted on the client side is totally encrypted data stored on the server; the hardware private key is used to meet the needs of the industry.

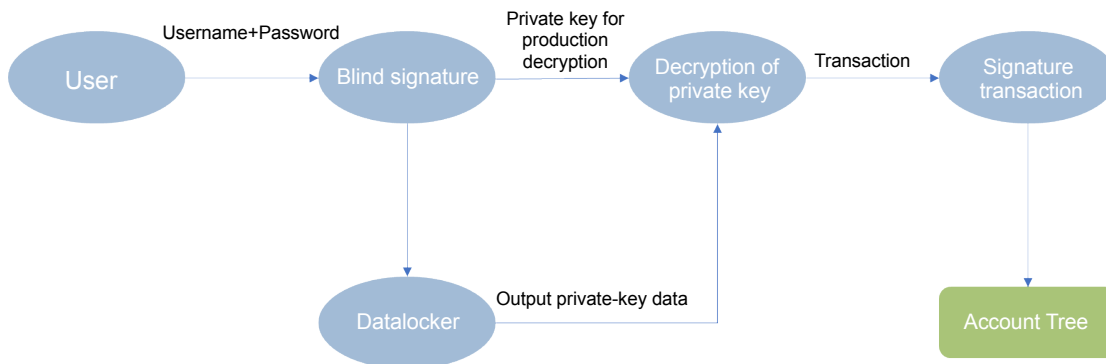


Figure 4-3: Secure Private Key Access

2. Multiple privacy protections

Multiple privacy protections are provided. Firstly, being encrypted and stored, all user data is accessible solely to the user through homomorphic encryption provided by the underlying platform of Blockchain. Secondly, BTMC provides encrypted middleware services for users to choose according to business needs. Lastly, data can be encrypted by upstream applications during entering, and the BTMC platform is responsible for writing and reading encrypted data

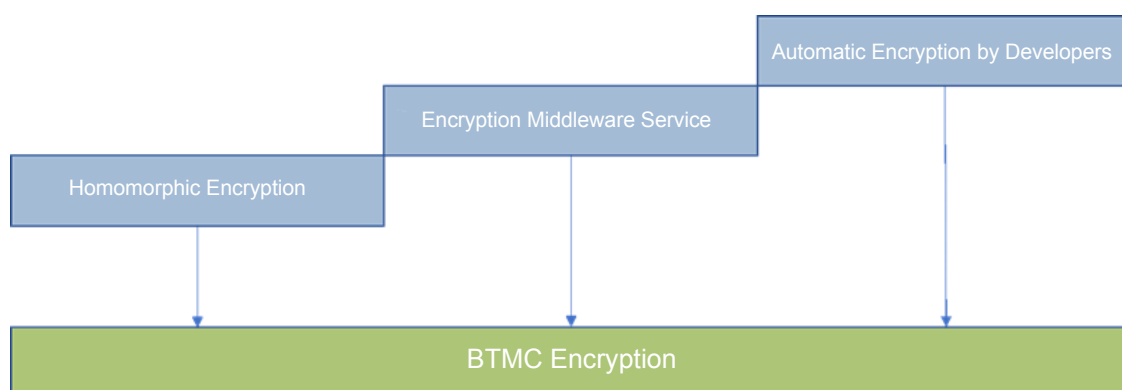
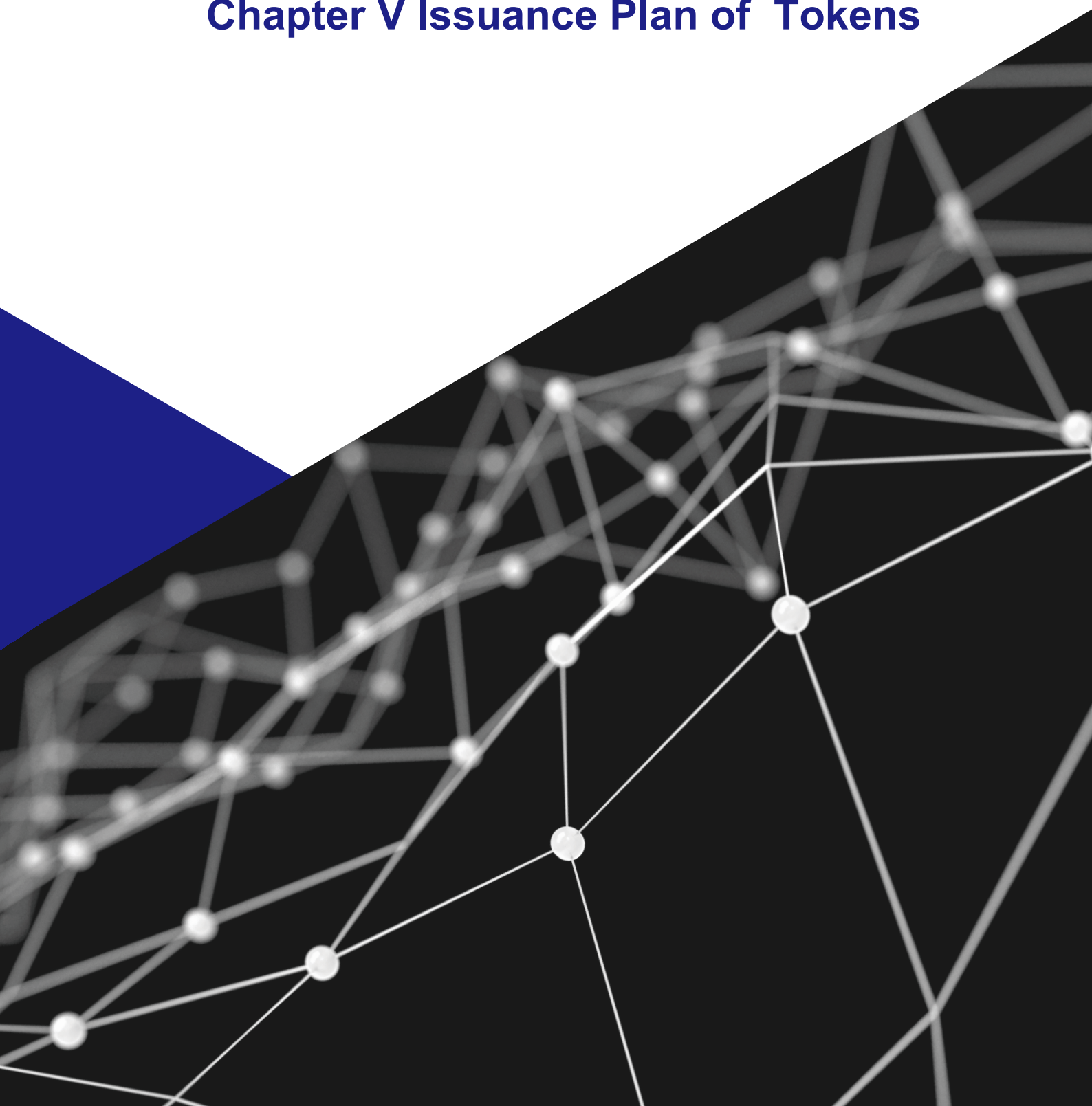


Figure 4-4: Multiple Privacy Protections

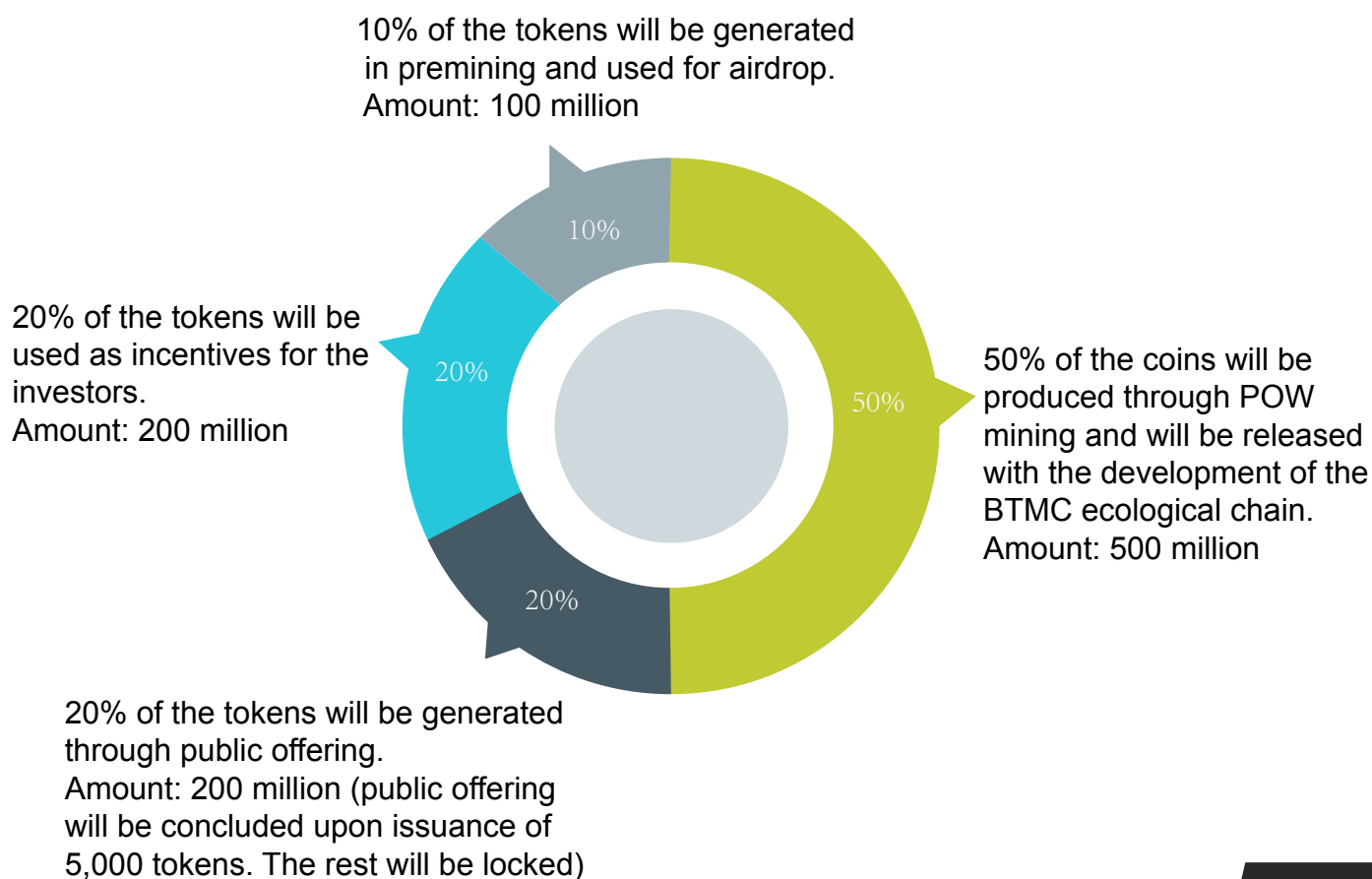
Chapter V Issuance Plan of Tokens



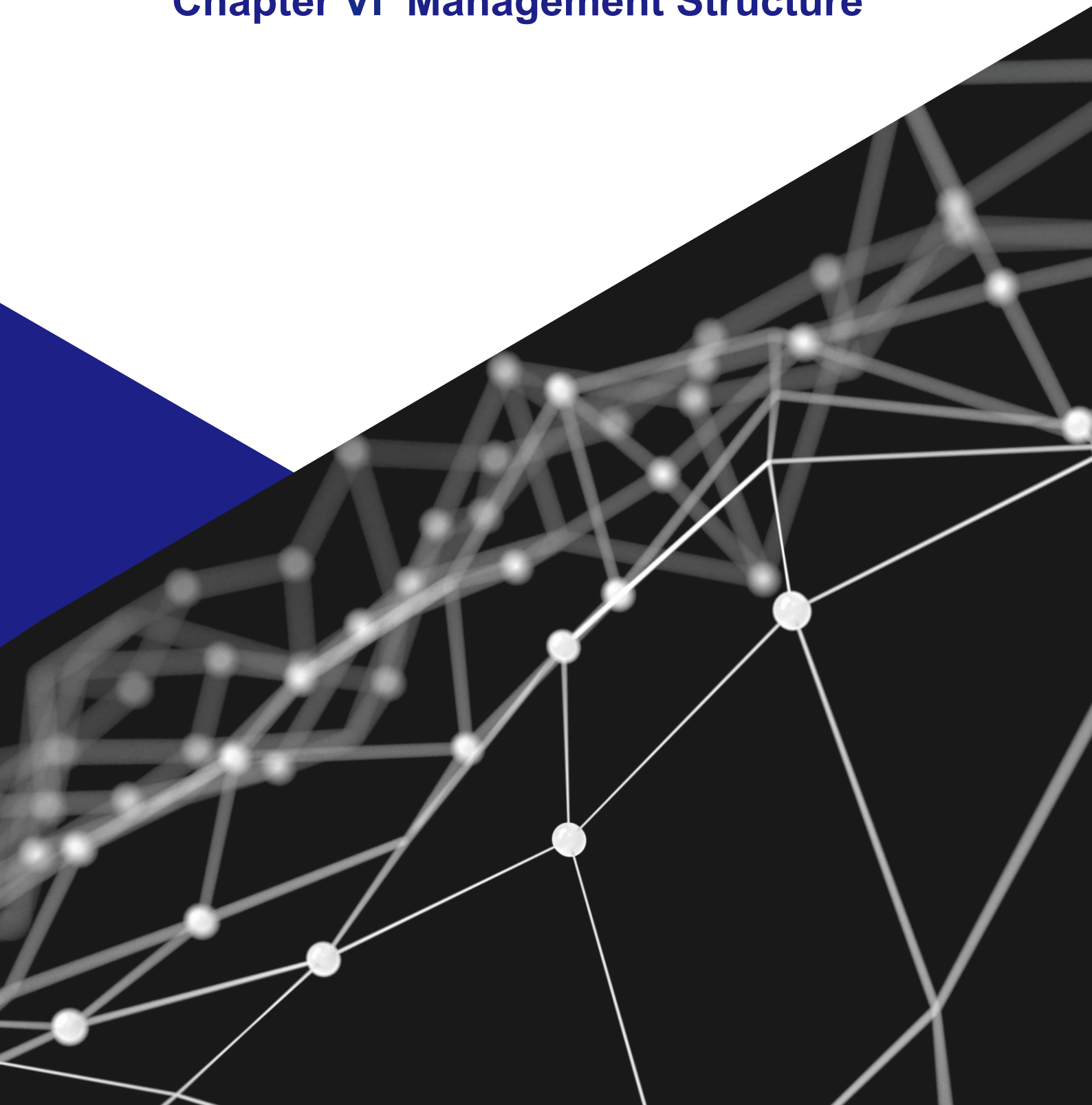
Issuance Plan of BTMC Tokens

As the token based on the ERC20 standards and coins for highly decentralized AI supply chain service platform, BTMC tokens can be used in all the processes of AI chips: chip R&D, manufacturing, smart trading, product tracing, financial services for supply chain, community service, and corporate alliance. The circulation of BTMC tokens can streamline all the procedures of AI chips. With the fast development of AI market, more and more people and enterprises are joining the BTMC ecological system. The value of BTMC is highlighting in the growing market demands.

The issuance amount of BTMC tokens is 1 billion and no additional placement will be provided. The distribution plan is as follows:



Chapter VI Management Structure



The BTMC project will be managed through a foundation.

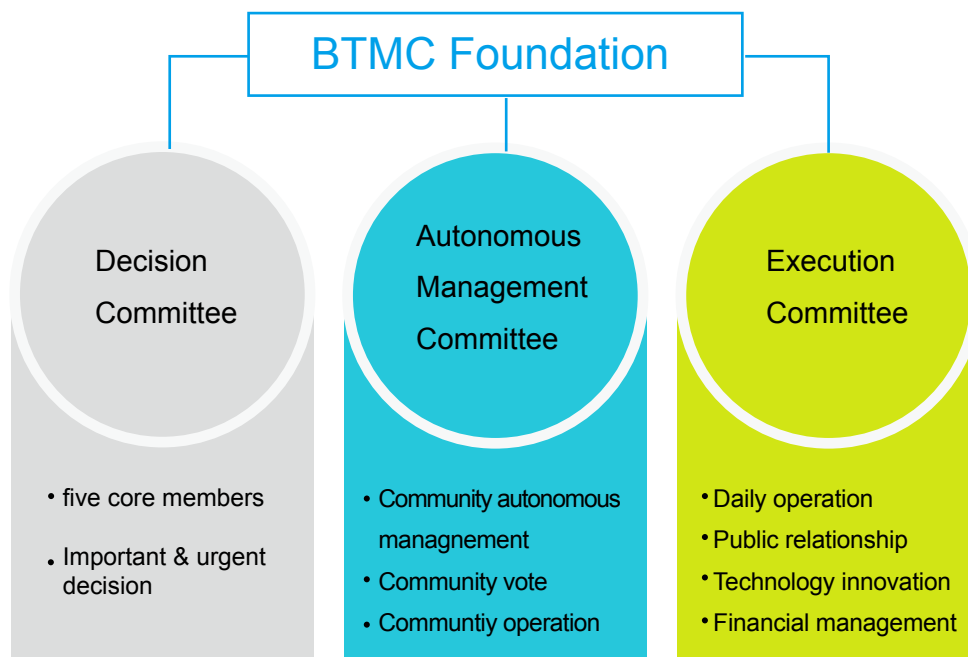
BTMC Foundation was registered and established in 2018 by Qiao Teng Investment Co., Ltd, a company that has registered in The British Virgin Islands (BVI No.:1986613). Specialized in the investment and development of blockchain sector, it is committed to building a blockchain flagship of multiple fields. BTMC is one of projects of Qiao Teng Investment.

The Foundation is aimed at the construction and management of BTMC. Its main goals are to ensure the sustainable development of BTMC projects, safety and management efficiency of funds that have been raised. BTMC Foundation consists of the Decision Committee, Autonomous Management Committee, and Execution Committee, which have included the operation process and rules for daily work and special conditions.

In order to avoid a mismatch of strategy and decision or segmentation of community, the Foundation has rolled out a good governance structure to identify the general and special issues. The Foundation is designed to ensure the sustainability of the platform, efficiency of decisions, and compliance of fund management. The power of the Foundation is implemented by the Decision Committee.

Upon expiration of the term, five key persons for The Decision Committee will be selected out through votes. They will act on behalf of the Foundation to make important and emergent decisions and receive a credit investigation during their term.

In order to ensure safe operation, the members of the first Decision Committee will consist of the team member and early investors, with a term of two years. The members for the Committee will be selected out through votes of community upon expiration of the term. The first Decision Committee will consist of five members, three of whom are team members and two are early investors. All the decisions shall be based on the 3/5 multi-signature scheme.



Founding Team



Mike Knott Project Sponsor (CTO)

University of Pretoria, Computer Science, BSc.

Ever acted as CTO and co-founder of Cyber Hosting in San Diego, California, US; CA senior architect of consulting department of Union Bank; CTO of Distributive Networks in Washington DC, US; CTO of 7 Senses Labs AI in Shenzhen, China.



Hobart Muchi Co-founder (CEO)

Early volunteer and promoter of blockchain community; ever acted as senior market planner of a listed company. He has designed the PMRYK market rating system, familiar with R&D, manufacturing and marketing of AI chips. He has wide personal connections and resources in the AI market.



Keith Bleakie Co-founder (CMO)

BSc of Computer, blockchain expert and investor, MBA of Columbia University; ever acted as project director of Southeast Asia subsidiary of W. Kapeth Finance, with professional experiences in management of big projects and programming.

Core Team



Dr. Daniel Lin (Technical Director)

Graduating from the School of Microelectronics, Shanghai Jiao Tong University and with several years of experience in ASIC design and verification, Daniel Lin has successively worked as Senior Engineer & R&D Manager of ARM structure and CPU design as well as IC Design Director in the well-known enterprises such as STMicroelectronics and Rockchip Electronics.



Dr. Andrew Sun (System Architect)

Andrew Sun has been engaged in the integrated circuit design in Huawei Hisilicon ever since the graduation from Fudan University.



Dr. Eric Han (Software Development Director)

Graduating from Huazhong University of Science and Technology, Eric Han has worked as Big Data Manager in the leading network companies such as Baidu and Dangdang to provide an in-depth research of the bitcoin-related open source technology.



Peter Zhou (Chief JAVA Developer)

As the Chief JAVA Developer, Peter Zhou is good at multilingual computer programming and is experienced in system design. Peter Zhou has worked for the software development companies in Singapore and Hong Kong to have the remarkable achievements.



Steve Chen (Senior Engineer)

As the Senior C++ Development Engineer, Steve Chen has worked for several software and Internet companies to have a good command of C/C++ and Python; have the expertise of LAMP, Docker and AWS; have several years of the experience in software development and system architecture; and be good at analysis, handling and solving of the software-related difficulties in the complex environment. In addition, he is also experienced in analysis, design, development and implementation of the Blockchain system.



Wilson Gao (Chief Security Advisor)

As the Computer Network Security Specialist and Senior System Software Engineer, Wilson Gao has a good command of cryptography.

Consultant Team



Wendy Tan (Senior Securities Analyst)

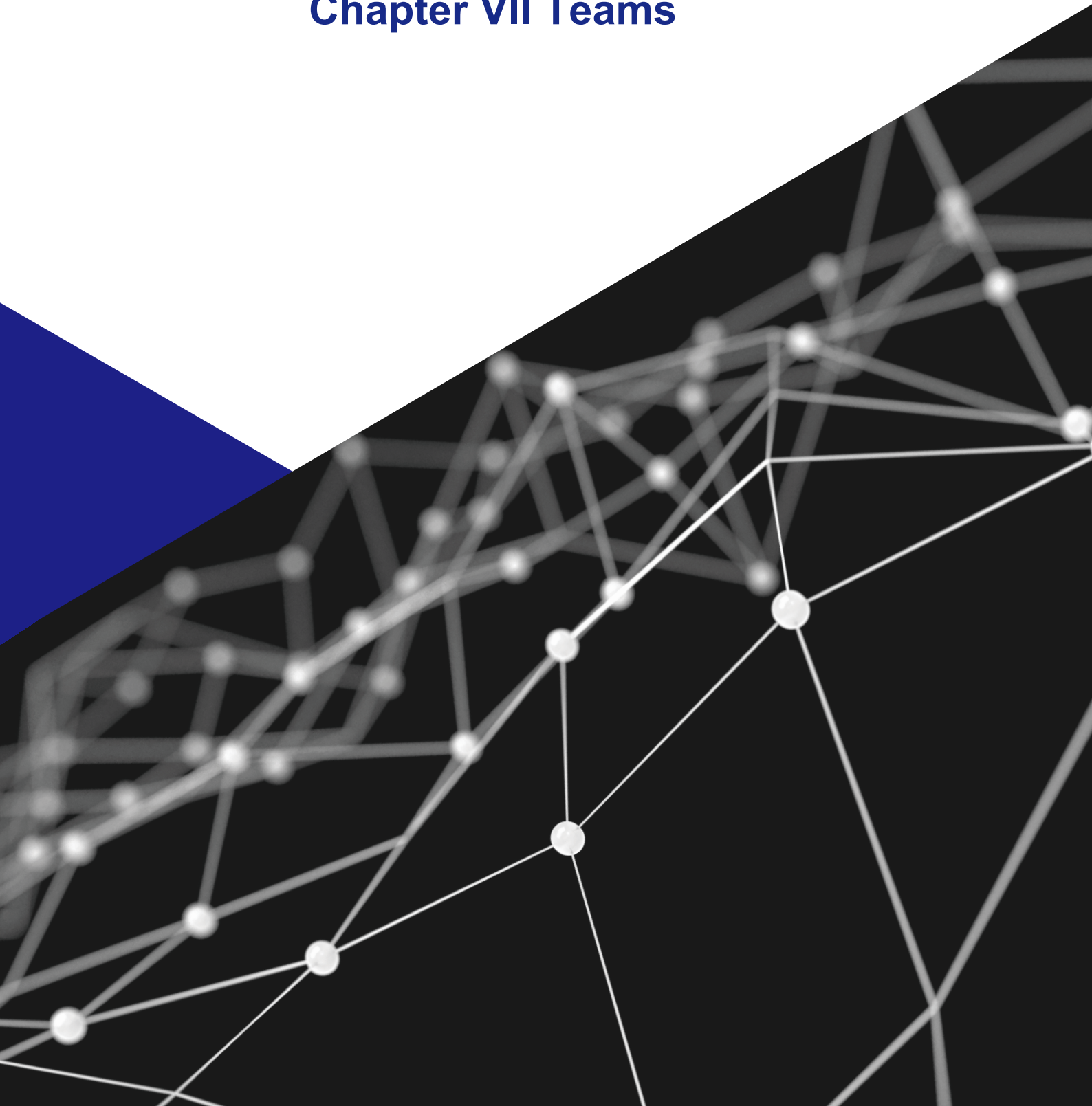
Graduating from University of Wollongong with the major of Master of Finance, Wendy Tan has worked to be responsible for the securities analysis and research in the domestic securities and private equity companies.



Dr. Andy Li (Senior Researcher)

With the expertise of microeconomics and finance research, Andy Li is responsible for analyzing the microeconomic operation situation in China and beyond, and is committed to analyzing the international commodity market, domestic and foreign stock markets and policies of the leading national central banks.

Chapter VII Teams





David Gong (Senior Accountant)

As the Senior Accountant, David Gong is responsible for the financial discipline, economic analysis, management accounting, communication with the investors and cash flow management. With the experience of management in several investment companies and more than 10 years of the experience in financial management, David has introduced the system of management accounting and budget for revenues and expenditures in the project framework to develop a method of project-related financial risk evaluation.



Robert Zhang (Legal Advisor)

Graduating from Waseda University with the LLM, Robert Zhang has been engaged in legal advice in a large foreign-funded enterprise for years to have a good command of Civil and Commercial Law, Securities Law and Corporate Law, and have the profound knowledge of theory of law as well as the experience of judicial operation.

Investment Institutions

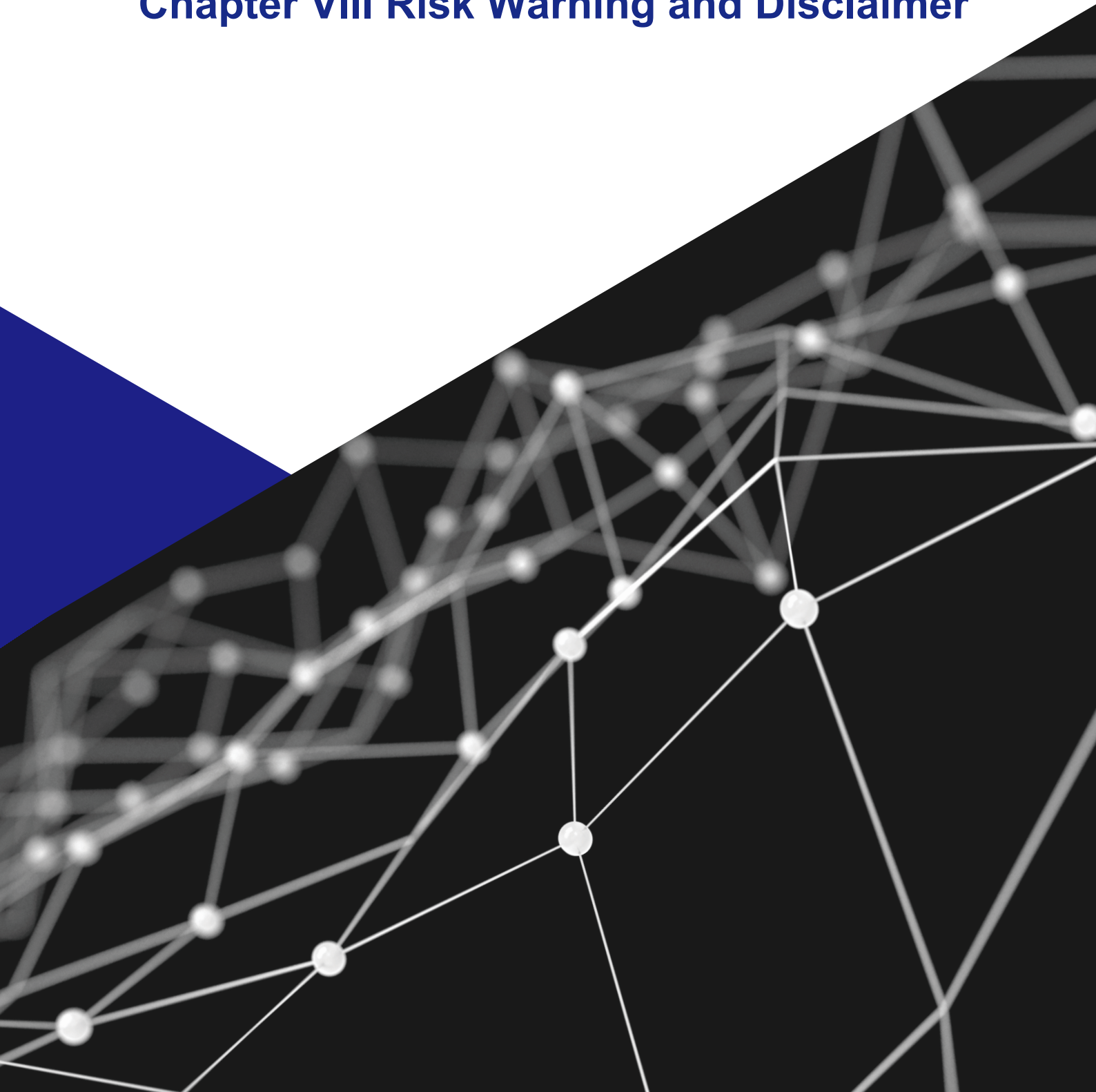


Qiao Teng Investment



Digital Ledger Investment

Chapter VIII Risk Warning and Disclaimer



Digital asset investment represents a new model of investment with possible risks, so potential investors shall provide the careful assessment of investment risks and their own risk tolerance.

- This document is designed to instruct the BTMC progress for the purpose of information communication only, but not to constitute the opinions about BTMC transaction. The above information or analysis shall not constitute any investment decision. This document shall not constitute any investment advice, investment intention or investment solicitation.

- This document shall neither constitute or be deemed as any act of transaction or act of invited transaction of securities in any form, nor be any form of contract or commitment.

- The intended users shall have a good understanding of the BTMC risks. Any investor who has participated in the investment shall be deemed to have understood and accepted the possible risks of the project and be willing to be responsible individually for any consequence or result caused thereby.

- The project teams shall not be held accountable for any asset loss caused by their participation of the BTMC.

Risks:

- Policy Risk: Blockchain technology is still at the early stage, and the countries have the uncertainty of regulatory policies for blockchain projects, so the projects may have any change of operation entity or management;

- Fluctuation Risk: Token is not a legal tender and is subject to significant price fluctuations, which requires the investors to have the psychological endurance;

- Technical Risk: The evolving blockchain technology cannot be guaranteed to be free of any technical loophole or hacker attack during the project operation;

- Team Risk: It is possible that any core member of the team resigns for reasons of pressure, physical body and individual during the BTMC development, but it is guaranteed that any replacement of the team is for sure intended to make the project development more stable.

Release the vitality of AI chip industry with the blockchain technology!



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